

Exploring the Influences of Teacher's Intelligence and Emotional Intelligence on Students' Academic Achievement

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Abstract The study examined the influences of teacher's intelligence or emotional intelligence on student achievement. The participants were 59 teachers of Thanjavur and Villupuram districts of the state Tamil Nadu. The research is of descriptive method and incorporates the use of survey technique. Data is collected using Emotional Intelligence Scale constructed and validated by the investigator and Performance Intelligence Scale for adults. Data is subjected to analysis using SPSS version 21. The study showed that emotional intelligence of teachers is influential than intelligence in enhancing the achievement of students.

Keywords: *teacher's intelligence, teacher's emotional intelligence, students' academic achievement*

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1. Introduction

The word "emotion" etymologically is derived from the Latin word "emovero" which means to "stir – up" "agitate" or "excite". Emotion is a 'moved' or 'stirred – up' state of an organism. It is excited state of feeling. Crow and Crow (1973) defined emotion as an affective experience that accompanies generalized linear adjustment and mental physiological stirred-up states in the individual and that shows itself in his overt behavior [12].

A person may become dumb with fear by seeing the thief in his house, a person on seeing the thief strikes the thief with rod out of angry, a person runs away by seeing the thief, a person is in great joy seeing his name in selection list, a person is surprised seeing a friend after 10 years, a person getting sad by the loss of points in stock exchange etc. are the examples of emotive behaviors.

Emotions involve three major components

- Physiological changes within our bodies e.g., rise in heart beat
- Subjective cognitive states e.g., the personal experiences labeled as emotions
- Expressive behavior e.g., outward signs of these internal reactions.

2. Intelligence

Intelligence is defined as the capacity to acquire and apply knowledge. In order to solve a problem, knowledge should be applied in a right manner. Intelligence is the

mental ability which helps the individual to think about minute, complex and abstract matters, to adjust with changing situations by solving various problems as quickly as possible.

Following are some of the definitions of intelligence taken from [12].

Binet (1901) states intelligence as "the tendency to take and maintain a definite direction; the capacity to make adaptations for the purpose of attaining a desired end; and the powers of auto-criticism". While defining intelligence father of intelligence testing Binet lays stress on adaptation.

Thorndike (1920) defines intelligence as the "ability to make good responses and is demonstrated by the capacity to deal effectively with novel situations of an abstract, mechanical or social nature". In his definition Thorndike has added a non-cognitive aspect (social nature) of intelligence.

Stoddard (1943) has given somewhat comprehensive view of intelligence as "the ability to undertake activities that are characterized by (1) difficulty, (2) complexity, (3) abstractness, (4) economy (5) addictiveness to a goal, (6) social value and (7) the emergence of originals and to maintain such activities under conditions that demand a concentration of energy and a resistance to emotional forces".

3. Emotional Intelligence

The term 'Emotional Intelligence' is coined by psychologists Mayer and Salovey. Since then, a number of researches had been done and being done on emotional intelligence. Daniel Goleman popularized the concept worldwide through his celebrated books [8,9].

3.1. Definitions of Emotional Intelligence

Definitions are the formal statements of the meaning or significance of a word or phrase. Emotional Intelligence is, perceiving ours and other emotions, understanding them and use in our thought and action. Following are some of the definitions of emotional intelligence given by renowned psychologists.

Singh (2003) made a survey and empirically arrived at the definition on emotional intelligence. He defines emotional intelligence as the ability of an individual to appropriately and successfully respond to a vast variety of emotional stimuli being elicited from the inner self and immediate environment [11].

Bharwaney (2001) has put it very simply as tuning into emotions, understanding them and taking appropriate action.

Emotional Intelligence is the ability to use emotions to solve problems and live a more effective life. Emotional intelligence without intelligence, or intelligence without emotional intelligence, is only part of a solution. As Caruso, 2000 has put it, the complete solution is the head working with the heart [14].

4. Academic Achievement

Academic achievement is the knowledge obtained by a student in a particular area. This can be measured by a test which is known as achievement test.

5. Rationale of the Study

More number of emotional outbursts occur in school and institutions. Students commits suicide due to the failure in subjects, fear for teachers and teachers are murdered by their own wards are commonly seen in educational institutions.

“Babiya Chatterjee (22) a fourth year B.Tech student of IIT, Kanpur committed suicide on 40th convocation day of the institute, because she cheated her parents that she had graduated” (as Cited in Srinivasan, [20]).

“A teacher was stabbed to death in the classroom of a Chennai school, allegedly by 15 years-old student who was upset at being repeatedly reprimanded by her for not doing well in studies”. (Teacher was stabbed to death in the classroom of a Chennai school, [23]).

“Suresh 45 year’s old principal of Infant Jesus College of engineering, Keezha Vallanad in Tuticorin District, was fatally attacked with long knives as soon as he got out of his car. The suspension of a final year aeronautical engineering student, for his behavior on and off the college campus, allegedly provoked him to murder the principal” (Vengeful students murder principal, [24]).

Dilkush Saharia, 16 year-old boy, studying in a government school in Rajasthan, allegedly committed suicide after being humiliated and beaten by his teacher (Student committed suicide after being humiliated and beaten by his teachers, [21]).

It is evident from above that the emotional outbursts occur not only to students and teachers in low profile schools / institutions but also to students and teachers of elite school / institutions such as National Institute of Technology, Indian Institute of Technology etc. The

reason behind this outburst is that the teachers and students as well do not know how to manage their emotions. This holds well not only to teachers and students but general public as well.

What is required is to root out this menace is awareness on affective competencies. This should be given to all. One has to understand the feelings of others and responds appropriately to those feelings. It is necessary that everyone should have affective competencies. Emotional intelligence, in comparison to sense of humor, was found to have a stronger relationship to students' positive score changes [13].

Generally in schools and colleges knowledge and understanding area of cognitive domain and some area of psychomotor domain are taught in schools. Schools / colleges generally ignore affective domain. Results of study [7] indicated that the variables of self- regulation and self- motivation had positive and significant relationship with educational achievement. Mere knowing of affective domain is not enough, but practicing is more essential. This makes education into holistic education.

According to Mahatma Gandhi, “By education I mean all round – drawing out of the best in child and man - body, mind and spirit” [19]. Education according to Swami Vivekananda is a man making process [22]. Education according to Jiddu Krishnamurthy [17] is

- Educating the whole person (all parts of the person)
- Educating the person as a whole (not as an assemblage of parts) and
- Educating the person within a whole (as part of society, humanity, nature, etc.)

The teacher should manage their emotions and possess intelligence and emotional intelligence. It helps to solve classroom problems. Findings showed that teachers' emotional intelligence has a positive role in promoting students' achievement, by enhancing the effects of students' self perceptions of ability and self-esteem [1]. Teacher's intelligence and emotional intelligence will use to control their emotions and make teaching effective. It may lead students to have good mental and physical health.

Can the teacher's intelligence and emotional intelligence enhance academic achievement of students apart from his / her academic prowess? To answer this question, the following topic is chosen to do research.

“Exploring the influences of Teacher's Intelligence and Emotional Intelligence on Students' Academic Achievement”.

6. Hypothesis of the Study

The hypotheses of the study are as follows.

- There is a relationship between intelligence and emotional intelligence of school teachers
- There is a significant difference between government and private school teachers in intelligence
- There is a significant difference between government and private school teachers in emotional intelligence
- There is a relationship between intelligence of school teachers and academic achievement of students
- There is a relationship between emotional intelligence of school teachers and academic achievement of students

7. Method

This research employed descriptive method and incorporates the use of survey technique.

8. Sample

The sample comprised of 59 school teachers of Thanjavur and Villupuram districts of Tamil Nadu. Convenient sampling technique is used to select the sample for the study.

9. Tools

The following tools were used in the study.

- Emotional Intelligence Scale constructed and validated by the investigator
- Performance Intelligence Test for Adults
- Quarterly Marks of Students. This serves as the academic achievement of the students.

10. Procedure

The investigator got the permission from the head master of the two selected schools and administered the tools on emotional intelligence and intelligence to the teachers. Quarterly marks of all the students of a single class in which the teacher handles his / her subject is collected.

11. Descriptive Statistics

Descriptive analysis involves computing mean, standard deviation, percentage analysis etc. These measures are useful to determine the central tendencies and dispersions of all the variables selected for the study. The computed values are used to describe the properties of a particular sample.

The following [Table 1](#) shows descriptive statistics for intelligence, emotional intelligence and achievement of student's scores of students.

The mean value for the intelligence score for teachers is 112.36, which is high. The standard deviation for the scores is 10.374. It possesses positive skewness.

Table 1. Descriptive Statistics

S.No.	Statistic	Intelligence Scores of Teachers	Emotional Intelligence Scores of Teachers	Academic Achievement of Students
1	N	59	59	-
2	Range	37	17	61
3	Mean	112.36	21.02	70.15
4	Standard Deviation	10.374	4.183	16.017
5	Skewness	0.104	0.071	-0.459
6	Kurtosis	-1.145	-0.646	-0.692

The mean value for the emotional intelligence score for teachers is 21.02, which is above average. The standard deviation for the scores is 0.071. It possesses positive skewness.

The mean value for the academic achievement of students is 70.15, which is high. The standard deviation for the scores is 16.017. It possesses negative skewness.

12. Differential Analysis

Differential analysis involves 't' test. A 't' test is a numerical procedure that takes into account the size of the difference between the measures of two groups / scores. The 't' test tests whether there is any significance of difference between the two groups or two set of scores.

Table 2. Groupwise N, M, SD, and t values

Scores for Teachers	Groups	N	M	SD	t * 0.05 **0.01
Intelligence	Govt	29	116.55	9.8	3.3**
	Private	30	108.30	9.3	
Emotional Intelligence Scores	Govt	29	20.90	4.07	0.216**
	Private	30	21.13	4.35	

The t statistics are summarized in [Table 2](#). From [Table 2](#), 't' value for intelligence scores of teachers is 3.3 which is significant at 0.01 level with df = 57. It shows that intelligence between government and private school teachers differ significantly.

From the [Table 2](#), 't' value is 0.216 which is not significant at 0.01 level with df = 57. It shows that emotional intelligence between government and private school teachers does not differ significantly.

13. Correlation Analysis

To measure the degree of association or relationship between two variables correlation is used. If the change in

one variable appears to be accompanied by a change in the other variable, the two variables are said to be co-related and this inter-dependence is called correlation. The correlation is found using Pearson product moment method and it is summarized in [Table 3](#).

From the [Table 3](#), the correlation between intelligence and emotional intelligence is 0.095 with degrees of freedom 57, which is not significant at 0.05 level. It shows that there is insignificant correlation between intelligence and emotional intelligence of school teachers.

From the [Table 3](#), the correlation between intelligence of school teachers and achievement of students is -0.822 with degrees of freedom 57, which is significant at 0.01 level. It shows that there is high negative correlation

between intelligence of school teachers and achievement of students.

From the Table 3, the correlation between emotional intelligence of school teachers and achievement is 0.035

with degrees of freedom 57, which is not significant at 0.05 level. It shows that there is insignificant correlation between emotional intelligence of school teachers and achievement of students.

Table 3. Summary of Correlation

S.No.	Scores	N	M	SD	R * 0.05 **0.01
1	Intelligence of teachers	59	112.36	10.374	+ 0.095
	Emotional intelligence of teachers	59	21.02	4.183	
2	Intelligence of teachers	59	112.36	10.374	-0.822**
	Academic achievement of students		70.15	16.017	
3	Emotional intelligence of teachers	59	21.02	4.183	+ 0.035
	Academic achievement of students		70.15	16.017	

14. Conclusion

Following are the conclusion drawn from the study

- There is a significant difference between government and private school teachers in intelligence. The intelligence of government school teacher is higher than that of private school teachers. This may be due to the fact that the government school teachers were recruited through tests while private school teachers were not.
- There is no significant difference between government and private school teachers in emotional intelligence. Even though the intelligence of government teachers is higher than private school teachers but their emotional intelligence is almost the same.
- There is insignificant correlation between intelligence and emotional intelligence of school teachers. This may be due to the fact that the intelligence is purely rational whereas emotional intelligence is understanding the emotion and taking appropriate action [8,9].
- There is high negative correlation between intelligence of school teachers and achievement of students. This shows that teachers have to understand the students emotionally and has to follow affective teaching [13].
- There is insignificant correlation between emotional intelligence of school teachers and achievement of students. Even though there is less correction between the emotional intelligence and achievement, it is not in negative direction. This shows that emotional intelligence of teachers does contribute to achievement of students rather than intelligence. This is in accordance with the results of [7]. If, emotional intelligence of the teachers is increased by means of a training / workshop, it will have any an influence in the academic achievement of students.

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